Query= SEQ ID NO:9 (PE029) (184 letters)

Sequences producing significant alignments:

Score E (bits) Value

AL390242.17.1.68883 AL158844.14.1.53402 192 5e-47 78 8e-13

>AL390242.17.1.68883

Length = 68883

Score = 192 bits (97), Expect = 5e-47
Identities = 97/97 (100%)

Strand = Plus / Plus

Query: 88 agcacaccaacatggcacatgtatacatatgtaacaaacctgcacattgtgcacatgtac 147

Sbjct: 3247 agcacaccaacatggcacatgtatacatatgtaacaaacctgcacattgtgcacatgtac 3306

Query: 148 cctaaaacttaaagtgtaacaataataaaatttttt 184

Sbjct: 3307 cctaaaacttaaagtgtaacaataataaaatttttt 3343

>AL158844.14.1.53402

Length = 53402

Score = 77.8 bits (39), Expect = 8e-13
Identities = 45/48 (93%)

Strand = Plus / Plus

Query: 40 actgntgtttgcaagctgnntaagtgagcaaatcttgggaagatttca 87

Sbjct: 53105 actgttgtttgcaagctggttaagtgagcaaatcttgggaagatttca 53152

Query= SEQ ID NO:10 (PE029)
(309 letters)

Sequences producing significant alignments: (bits) Value AC087564 ACCESSION: AC087564 NID: gi 28933558 gb AC087564.6 Hom... 589 e-165 AC007344 ACCESSION: AC007344 NID: gi 5851724 gb AC007344.3 AC007... 589 e-165 >AC087564 ACCESSION:AC087564 NID: gi 28933558 gb AC087564.6 Homo sapiens chromosome 16 clone RP11-437L7, complete sequence Length = 157233Score = 589 bits (297), Expect = e-165 Identities = 309/310 (99%), Gaps = 1/310 (0%)Strand = Plus / Minus Query: 1 ggaagctttcacaccacattttgtttcctgacaagagaaggagaaatcgttggcctctgc 60 Sbjct: 105042 ggaagetttcacaccacattttgtttcctgacaagagaaggagaaatcgttggcctctgc 104983 gtgacatggagggtcccccacctgcaagcttttgtgttttgctggatcttggacagtacc 120 Query: 61 Sbjct: 104982 gtgacatggagggtccccccacctgcaagcttttgtgtttgctggatcttggacagtacc 104923 Query: 121 aacaccttgttccct-ttgcggttcaaaagccactgtcactggggtacataggcagtttt 239 Query: 181 Sbjct: 104862 aacaccttgttcccttttgcggttcaaaagccactgtcactggggtacataggcagtttt 104803 Query: 240 aaaaaaggctacaattcatatgcaaactagaggaggatttccatgatttcataataaaat 299 Sbjct: 104802 aaaaaaggctacaattcatatqcaaactagaggaggatttccatgatttcataataaaat 104743 Query: 300 gttgaaacgc 309 Sbjct: 104742 gttgaaacgc 104733

Score

E

## >AC007344 ACCESSION:AC007344 NID: gi 5851724 gb AC007344.3 AC007344 Homo sapiens chromosome 16 clone RPCI-11\_466G2, complete sequence Length = 180827

Score = 589 bits (297), Expect = e-165
Identities = 309/310 (99%), Gaps = 1/310 (0%)
Strand = Plus / Plus

Query: Sbjct:	ggaagctttcacaccacattttgtttcctgacaagagaaggagaaatcgttggcctctgc	
Query: Sbjct:	gtgacatggagggtcccccacctgcaagcttttgtgtttgctggatcttggacagtacc	
Query: Sbjct:	ctggcgaaaagcattcggcaagattatccggctagcacagccttcaaggaataaata	
Query: Sbjct:	aacaccttgttccc-tttgcggttcaaaagccactgtcactggggtacataggcagtttt	
Query: Sbjct:	aaaaaaggctacaattcatatgcaaactagaggaggatttccatgatttcataataaaat	

Query: 300 gttgaaacgc 309

Sbjct: 176832 gttgaaacgc 176841

Query= SEQ ID NO:11 (PE029) (143 letters)

Sequences producing significant alignments:

Score E (bits) Value

AC019129 ACCESSION: AC019129 NID: gi 16077059 gb AC019129.8 Hom... 266 le-68

>AC019129 ACCESSION:AC019129 NID: gi 16077059 gb AC019129.8 Homo sapiens BAC clone RP11-559M23 from 2, complete sequence Length = 172611

Score = 266 bits (134), Expect = 1e-68
Identities = 140/143 (97%)
Strand = Plus / Minus

Query: 1 gtggccatgtacttggcttaaagttaaggattctactactgtngaaganggagagaacgg 60

Sbjct: 94486 gtggccatgtacttggcttaaagttaaggattctactactgtagaagaaggagagaacgg 94427

Query: 61 nttctagaggacaactggcagtctccttgtagctgagacttttttgtgtataaaaattaa 120

Sbjct: 94426 attctagaggacaactggcagtctccttgtagctgagacttttttgtgtataaaaattaa 94367

Query: 121 taaaattggtttattaatttgtt 143

Sbjct: 94366 taaaattggtttattaatttgtt 94344

Query= SEQ ID NO:12 (PE029) (210 letters)

Query: 61

gacag 65

Sbjct: 43651 gacag 43647

Score E (bits) Sequences producing significant alignments: Value 281 8e-74 AC016601.7.1.145264 AC034246.4.1.155025 281 8e-74 >AC016601.7.1.145264 Length = 145264Score = 281 bits (142), Expect = 8e-74 Identities = 146/147 (99%), Gaps = 1/147 (0%) Strand = Plus / Minus agagatgggggtttcgccatgttgcccaggctggtctcaagctcctgaactcaagtgatc 123 Query: 64 Sbjct: 36474 agagat-ggggtttcgccatgttgcccaggctggtctcaagctcctgaactcaagtgatc 36416 ttcccacctaagcctcccaaagtgctgggattacaggcatgagccacgactcccagcctg 183 Query: 124 Sbjct: 36415 ttcccacctaagcctcccaaagtgctgggattacaggcatgagccacgactcccagcctg 36356 aaatatagattttaatcttcagcttgc 210 Query: 184 Sbjct: 36355 aaatatagattttaatcttcagcttgc 36329 Score = 129 bits (65), Expect = 7e-28 Identities = 65/65 (100%) Strand = Plus / Minus atctatgcagattagctctctgcccttcctttaataactggactcttggagcatctgatt 60 Query: 1 Sbjct: 43711 atctatgcagattagctctctgcccttcctttaataactggactcttggagcatctgatt 43652

>AC034246.4.1.155025 Length = 155025

Score = 281 bits (142), Expect = 8e-74
Identities = 146/147 (99%), Gaps = 1/147 (0%)
Strand = Plus / Plus

Query: 64 agagatggggtttcgccatgttgcccaggctggtctcaagctcctgaactcaagtgatc 123

Sbjct: 16092 agagat-ggggtttcgccatgttgcccaggctggtctcaagctcctgaactcaagtgatc 16150

Query: 124 ttcccacctaagcctcccaaagtgctgggattacaggcatgagccacgactcccagcctg 183

Sbjct: 16151 ttcccacctaagcctcccaaagtgctgggattacaggcatgagccacgactcccagcctg 16210

Query: 184 aaatatagattttaatcttcagcttgc 210

Sbjct: 16211 aaatatagattttaatcttcagcttgc 16237

Score = 129 bits (65), Expect = 7e-28

Identities = 65/65 (100%)

Strand = Plus / Plus

Query: 1 atctatgcagattagctctctgcccttcctttaataactggactcttggagcatctgatt 60

Sbjct: 8857 atctatgcagattagctctctgcccttcctttaataactggactcttggagcatctgatt 8916

Query: 61 gacag 65

Sbjct: 8917 gacag 8921

Query= SEQ ID NO:13 (PE029) (453 letters)

(bits) Sequences producing significant alignments: AL391500 ACCESSION:AL391500 NID: gi 12227422 emb AL391500.13 H... 735 0.0 >AL391500 ACCESSION:AL391500 NID: gi 12227422 emb AL391500.13 Human DNA sequence from clone RP11-707M13 on chromosome 6, complete sequence Length = 171220Score = 735 bits (371), Expect = 0.0Identities = 371/371 (100%) Strand = Plus / Minus Query: 1 gtatacatccagatggccggaagcaactgaagatccacaaaagaagtgaaaatagccgta 60 Sbjct: 76957 gtatacatccagatggccggaagcaactgaagatccacaaaagaagtgaaaatagccgta 76898 Query: 61 actgatgacattccaccattgtgatttgtttctgccccaccgtaactgatcaatgtactt 120 Sbjct: 76897 actgatgacattccaccattgtgatttgtttctgccccaccgtaactgatcaatgtactt 76838 tgtaatctcccccacccttaagaaggttctttgtaatctcccccacccttaagaatgttc 180 Ouery: 121 Sbjct: 76837 tgtaatctcccccaccttaagaaggttctttgtaatctcccccaccttaagaatgttc 76778 tttgtaattctccccaccttgagaatgtactttgtgagatctaccccctgcccacaaaa 240 Query: 181 Sbjct: 76777 tttgtaattctccccacccttgagaatgtactttgtgagatctaccccctgcccacaaaa 76718 cattggtcctgactccaccgcctatcccaaaacctataagaactaatgataatcccacca 300 Query: 241 Sbjct: 76717 cattggtcctgactccaccgcctatcccaaaacctataagaactaatgataatcccacca 76658 ccctttgctgactctcttttcggactcagcccgcctgcacccaggtgaaataaacagcct 360 Query: 301 Sbjct: 76657 ccctttgctgactctcttttcggactcagcccgcctgcacccaggtgaaataaacagcct 76598 Query: 361 tgttgctcaca 371 Sbjct: 76597 tgttgctcaca 76587

Score

Ε

Value

Query= SEQ ID NO:14 (PE029) (344 letters)

Sequences producing significant alignments:	Score (bits)	E Value			
AL354814.19.1.70126 AL391683.8.1.168373 AL160397.17.1.204056	$\frac{281}{238}$ $\frac{163}{1}$	1e-73 2e-60 2e-38			
>AL354814.19.1.70126 Length = 70126					
<pre>Score = 281 bits (142), Expect = 1e-73 Identities = 145/146 (99%) Strand = Plus / Plus</pre>					
Query: 199 caggaagaaaaatggaactaaaaagggaaaacaatagcaacaaagatcaaaat	aaataac	258			
Sbjct: 25129 caggaagaaaaatggaactaaaaagggaaaacaatagcaacaaagatcaaaat	aaataac	25188			
Query: 259 aaggaagcggagagaagaagaacatggtgaagagagtgaaaagcattgtcat		318			
		25248			
Query: 319 gaattgcagaaagaaataaattattg 344					
>AL391683.8.1.168373 Length = 168373					
<pre>Score = 238 bits (120), Expect = 2e-60 Identities = 120/120 (100%) Strand = Plus / Plus</pre>					
Query: 83 aatttcgctcttgttgcccaggctggagtgcaatgacgagatcttggctcac	tgcaacc	t 142			
Sbjct: 140792 aatttcgctcttgttgcccaggctggagtgcaatgacgagatcttggctcac					
Query: 143 ccacctcccaggtttaagtgattctcctgcctcagcctcccaagtagctggg		g 202			
		l g 140911			

>AL160397.17.1.204056 Length = 204056

Score = 163 bits (82), Expect = 2e-38
Identities = 82/82 (100%)
Strand = Plus / Plus

Query: 1 tgcctccagaaagaacgcagccctactgacaccttggttttggcctggtgagaccaactt 60

Sbjct: 1502 tgcctccagaaagaacgcagccctactgacaccttggtttttggcctggtgagaccaactt 1561

Query: 61 tggacttttcacttccaaaact 82

Sbjct: 1562 tggacttttcacttccaaaact 1583

Query= SEQ ID NO:15 (PE029) (473 letters)

Query: 312

Score E
Sequences producing significant alignments: (bits) Value

AC084117 ACCESSION:AC084117 NID: gi 22165345 gb AC084117.6 Hom... 414 e-113

>AC084117 ACCESSION:AC084117 NID: gi 22165345 gb AC084117.6 Homo sapiens chromosome 11, clone RP11-107C21, complete sequence

Length = 166973

Score = 414 bits (209), Expect = e-113
Identities = 215/217 (99%)
Strand = Plus / Minus

Query: 192 caggtctacatttctctttgccatactgctctgggctctgggggttgacctgaatggacc 251

Sbjct: 84399 caggtctacatttctctttgccatactgctctgggctctgggggttgacctgaatggacc 84340

Query: 252 acacagccatggtgtctcctgtcctcaccttcactggtgaagactgggagtgaggaaga 311

Sbjct: 84339 acacagccatggtgtctcctgtcctccaccttcactggtgaagactgggagtgaggaaga 84280

agagtgagattgcaccctctctgcaggaccatgggcagaccctgccccttacctcttctc 371

Sbjct: 84279 agagtgagattgcaccctctctgcaggaccatgggcagaccctgccccttacctcttctc 84220

Query: 372 aggggtctctcttctctctctattaacttctttccatt 408

Sbjct: 84219 aggggtctctcttctctctgttaacttcttcccatt 84183

```
Score
                                                            Ε
                                                    (bits)
                                                          Value
Sequences producing significant alignments:
AP003031.3.1.95585
                                                     456 e-126
>AP003031.3.1.95585
       Length = 95585
Score = 456 bits (230), Expect = e-126
Identities = 240/243 (98%), Gaps = 1/243 (0%)
Strand = Plus / Minus
          qaqccaaqaaqtcctcaaaqcccttcctaaaqgatggaggaacacatgaatatatacatc 220
Ouery: 161
          Sbjct: 27019 gagccaagaagtcctcaaagcccttcctaaaggatggaggaacacatgaatatatacatc 26960
          aaatcctccttccacagagactcactgaagggaatgaagagggaaaagtcctcctaatt 280
Query: 221
          Sbjct: 26959 aaatcctccttccacagagactcactgaagggaatgaaggaaaggaaaagtcctcctaatt 26900
          attaaqatgcqttccttgggactcggagaattaggaaggaaacccccaagtcttgaatac 340
Query: 281
          Sbict: 26899 attaagatgcqttccttgqgactcggagaattaggaaggaaacccccaagtcttgaatac 26840
          atttctctaaagaggccgaatacttaataatcaggggagattaaagcaaatgggagac-c 399
Query: 341
          Sbjct: 26839 atttctctaaagaggccgaatacttaataatcaggggagattaaagcaaatggtagacac 26780
          cct 402
Query: 400
Sbjct: 26779 cct 26777
Score = 311 bits (157), Expect = 2e-82
Identities = 160/161 (99%)
Strand = Plus / Minus
Query: 1
          qaqtctactqacaqaaqccaaaggttgctgctagtttcagcttcctggtgttcctcatta 60
          Sbjct: 37882 gagtctactgacaaaagccaaaggttgctgctagtttcagcttcctggtgttcctcatta 37823
          ttttcaaaaatgtctgactgcatcttttggacattataaaaaccacagtaggaaaaaacg 120
Query: 61
```

Sbjct: 37822 ttttcaaaaatgtctgactgcatcttttggacattataaaaaccacagtaggaaaaaacg 37763

Query= SEQ ID NO:16 (PE029) (403 letters) Query= SEQ ID NO:17 (PE029) (445 letters)

Score E Sequences producing significant alignments: (bits) Value 535 e-150 AL158141.14.1.184181 >AL158141.14.1.184181 Length = 184181Score = 535 bits (270), Expect = e-150Identities = 312/329 (94%), Gaps = 2/329 (0%) Strand = Plus / Plus agggtcttgctctgtcqcccaqgctagagtgcagtggcgcaatcttggctcatggcaacc 177 Query: 118 Sbjct: 9434 agggtcttgctctgtcgcccaggctagagtgcagtggcgcaatcttggctcatggcaacc 9493 Query: 178 tccacctcccgggttcaagcgattctcctgccacagcctcccgagtagctgggattacag 237 Sbjct: 9494 tecacetecegggtteaagegatteteetgeeaeageetecegagtagetgggattacag 9553 gtgcctaccaccaggcccagctaaatttttttgtatttttagtacagacggggtttcgcc 297 Query: 238 Sbjct: 9554 gtgcctaccaccaggcccagctaaatttttttgtatttttagtacagacggggtttcgcc 9613 accttqqccaqqctqqtcttqaactcctqaccttqtqatctacccacctnagnntcccaa 357 Query: 298 Sbjct: 9614 accttggccaggctggtcttgaactcctgaccttgtgatctacccacctcagtctcccaa 9673 Query: 358 ngggctggnattacaggggggagagaccggacccagccaccttactgngtttctgantgn 417 Sbjct: 9674 agtgctgggattacaggtgtgagagaccgcacccagccaccttactgagtttctgattgc 9733 Query: 418 nntttcctttcct-ttccttttcccttaa 445 Sbjct: 9734 tctttcctt-cctcttccttctcccttaa 9761 Score = 238 bits (120), Expect = 2e-60 Identities = 120/120 (100%)Strand = Plus / Plus Query: 1 agacgggggtctcactacgttgcccaggctgatcttgaactcctgcctcaaatgaccctc 60 

Sbjct: 8124 agacgggggtctcactacgttgcccaggctgatcttgaactcctgcctcaaatgaccctc 8183

Query= SEQ ID NO:18 (PE029) (486 letters)

Sequences producing significant alignments: (bits) Value 599 e-169 AL158141.14.1.184181 >AL158141.14.1.184181 Length = 184181Score = 599 bits (302), Expect = e-169Identities = 347/362 (95%), Gaps = 3/362 (0%) Strand = Plus / Plus agggtcttgctctgtcgcccaggctagagtgcagtggcgcaatcttggctcatggcaacc 177 Ouerv: 118 Sbjct: 9434 agggtcttgctctgtcgcccaggctagagtgcagtggcgcaatcttggctcatggcaacc 9493 Query: 178 tccacctcccgggttcaagcgattctcctgccacagcctcccgagtagctgggattacag 237 Sbjct: 9494 tecacetecegggtteaagegatteteetgeeaeageeteeegagtagetgggattaeag 9553 Query: 238 qtqcctaccaccaggccagct-aatttttttgtatttttagtacagacggggtttcgcc 296 Sbict: 9554 qtqcctaccaccaqqcccaqctaaattttttttgtatttttagtacagacggggtttcgcc 9613 accttggccaggctggtcttgaactcctgaccttgtgatctacccacctcagtctcccaa 356 Ouery: 297 Sbjct: 9614 accttggccaggctggtcttgaactcctgaccttgtgatctacccacctcagtctcccaa 9673 Query: 357 agtgctgggattacaggtgtgagagaccgcacccaggcaccttactgaggttctgaatgn 416 Sbjct: 9674 agtgctgggattacaggtgtgagagaccgcacccagccaccttactgagtttctgattgc 9733 Query: 417 tcttttcnttctttttcctttttcccttaaattggcccaaagtttnatccttggcttttt 476 Sbjct: 9734 tctttcc-ttcctcttct-cccttaacttgccccaaagttttatccttgacttttt 9791

Score

Ε

Query: 477 tt 478

Sbjct: 9792 tt 9793

Score = 238 bits (120), Expect = 3e-60
Identities = 120/120 (100%)
Strand = Plus / Plus

Query: 1 agacgggggtctcactacgttgcccaggctgatcttgaactcctgcctcaaatgaccctc 60

Sbjct: 8124 agacgggggtctcactacgttgcccaggctgatcttgaactcctgcctcaaatgaccctc 8183